



December 9, 2013

Jake Kandelin
DEQ – Environmental Management Bureau
PO Box 200901
Helena, MT 59620-0901

VIA E-MAIL TO DEQColstrip@mt.gov

RE: Colstrip Units 3 and 4 EHP Report

Dear Mr. Kandelin:

On behalf of Montana Environmental Information Center, National Wildlife Federation, and Sierra Club, I submit the following comments and the attached memorandum from Geo-Hydro, Inc., regarding the Colstrip Units 3 and 4 EHP Site Report. As required by the Administrative Order on Consent (“AOC”), I respectfully request that DEQ provide timely and meaningful responses to these comments before taking action on the Colstrip Units 3 and 4 EHP Site Report. As detailed below and in the attached memorandum, the report is fundamentally flawed and must be rejected.

As a preliminary matter, we have significant concerns regarding the implementation of the AOC. First, implementation has been unacceptably slow. More than a year after DEQ and PPL signed the agreement (and more than 30 years after Colstrip’s coal-ash ponds began leaking contaminants into groundwater), implementation of the AOC is stalled in step one, i.e. site characterization. In each of the site reports, PPL identified needs for significant additional site characterization, yet it does not appear that PPL has submitted or DEQ has approved a site characterization work plan, as required by the AOC. Further, DEQ has not even accepted or rejected the Site Reports that PPL has submitted to date. Unless the AOC is implemented much more vigorously going forward, it will be years, if not decades, before a remedy is finally selected and implemented under the AOC.

Second, DEQ has failed to facilitate meaningful public participation. Although DEQ has held “public meetings” on the various site reports, the meetings have not been worthwhile because the Department has failed to provide background information that is essential to the public’s informed involvement or even to answer the public’s basic questions asked at those meetings. Further, the Department has failed to provide the requisite responses to all substantive comments on prior site reports. Finally, the Department has refused to provide timely notice of key events under the AOC (including report submissions, DEQ’s transmission of substantive concerns or PPL’s responses, and details regarding public meetings) directly to interested parties. Instead, the Department has referred parties to its AOC web page, which is not updated in a timely manner and is misleadingly organized. Indeed, from the AOC web page, it is impossible to know what actions under the “Five-Year Plan” have been accomplished, which have been

delayed and why, and what the results of those actions have been. To ensure that stakeholders are informed and able to participate meaningfully in the implementation of the AOC, we request that DEQ establish a monthly conference call to update interested parties regarding the project's status.

Third, we reiterate and incorporate our prior comments regarding the Units 1 and 2 STEP Site Report that PPL appears to be short circuiting the process established by the AOC to identify a remedy for existing and ongoing groundwater contamination due to the leaking ash ponds. While the site characterization report should help PPL and DEQ identify the scope of the contamination and the extent to which past remedial efforts have been successful to inform future selection of an appropriate clean-up solution, the Units 3 and 4 EHP site report documents actions by PPL that may inappropriately prejudge the outcome of the remedy selection stage of the AOC process. For example, the "Recommendations for Additional Site Characterization" enumerated in section 6.0 of the Site Report call for expanding groundwater capture efforts and installing liners (of unidentified type and thickness) in currently unlined cells in the impoundments, even though the efficacy of these measures has not been demonstrated. As a result, PPL Montana's approach to implementing the AOC largely consists of documenting the status quo, rather than undertaking a meaningful investigation of different remedial approaches that might finally solve the groundwater-pollution problem at Colstrip. DEQ should identify an appropriate remedy to cease contamination resulting from the impoundments and clean up the existing pollution *before* PPL expends further resources replicating ineffective past measures.

While our view is that decades of monitoring data already provide sufficient information to allow DEQ to identify more appropriate remedial measures, if additional site characterization is to be done, it should be meaningful. Unfortunately, the Units 3 and 4 EHP site report is incomplete and inaccurate. As detailed in the attached comments by Geo-Hydro, Inc., the report fails to perform the basic tasks of fully and accurately informing DEQ or the public about the geographic extent of the contaminated plumes of groundwater affected by Colstrip's waste impoundments, whether the plumes are growing, the concentration of pollutants at the edge of the plumes, and where they are heading.

While the Geo-Hydro, Inc. memorandum provides a detailed critique of the Units 3 and 4 EHP Site Report, this letter highlights specifically our concerns with PPL's use of draft "baseline screening levels" or BSLs for select indicator parameters that it claims "represent groundwater quality that is natural and unimpacted by the EHP in this area." 3 & 4 EHP Site Report, at Table 3-2, p. 43. As described below, the draft BSLs are grossly inaccurate, making them improper for use either as a site evaluation tool or as a benchmark for remediation.

PPL's draft BSLs do not accurately represent natural groundwater conditions over the area impacted by the EHP. As detailed in the Geo-Hydro, Inc. memorandum, PPL improperly identified a single BSL for each parameter over the large geographic area impacted by the EHP, even though it is known that background groundwater quality (i.e., conditions that predated operation of the EHP) varied widely across this area. While some areas affected by the EHP exhibited elevated levels of certain parameters due to mining and reclamation activities, other areas exhibited very low levels of contamination. It is improper to assume high levels of contamination as the background water quality in areas with no previous contamination.

Exacerbating this improper aggregation of monitoring data over a large geographic area, PPL's draft BSLs represent the highest recorded levels of contamination from the worst impacted monitoring points for nearly every parameter identified. As demonstrated in Tables 2 through 5 of the April 18, 2011 Draft Memorandum from Exponent to Arnold & Porter upon which PPL relies to identify the BSL (and attached hereto), the BSLs are generally many orders of magnitude higher than the lowest recorded contaminant levels in the same set of monitoring wells. In other words, PPL is assuming "background" water quality that is far worse than the conditions that pre-dated the EHP, and worse even than current degraded conditions. Thus, even in areas where groundwater is known to be impacted by the EHP, present contamination may appear lower than the draft BSLs. See, e.g., 3 & 4 EHP Site Report, App. C, Figs. C-9 to C-12 (showing elevated boron and specific conductance in the McKay aquifer south of the EHP, but chloride and sulfate concentrations below the BSLs). DEQ should reject PPL's draft BSLs as a tool for evaluating existing site conditions.

Not only do inaccurate BSLs misleadingly portray the location and extent of the contaminated groundwater plume, they provide an unacceptable remediation benchmark. DEQ should unconditionally reject PPL's recommendation in the site report "that groundwater wells showing improvement to BSLs, or better, be considered for shutdown," 3 & 4 EHP Site Report, at 6-1. It would be improper to declare remedial success at wells that may still exhibit contamination well above properly identified background conditions.

For these and the other reasons identified in the attached Geo-Hydro, Inc. report, we request that DEQ reject the 3 & 4 EHP site report as incomplete and inaccurate. Please contact us at your earliest convenience to discuss the possibility of scheduling a regular stakeholder call to facilitate a more transparent and inclusive process for implementing the AOC.

Sincerely,



Jenny Harbine

cc: Ed Hayes